

## Applications

1. In a comparison taste test of two drinks, 780 students preferred Berry Blast. Only 220 students preferred Melon Splash. Complete each statement.
  - a. There were  $\square$  more people who preferred Berry Blast.
  - b. In the taste test,  $\square\%$  of the people preferred Berry Blast.
  - c. People who preferred Berry Blast outnumbered those who preferred Melon Splash by a ratio of  $\square$  to  $\square$ .

2. In a comparison taste test of new ice creams invented at Moo University, 750 freshmen preferred Cranberry Bog ice cream while 1,250 freshmen preferred Coconut Orange ice cream.

Complete each statement.

- a. The fraction of freshmen who preferred Cranberry Bog is  $\square$ .
  - b. The percent of freshmen who preferred Coconut Orange is  $\square\%$ .
  - c. Freshmen who preferred Coconut Orange outnumbered those who preferred Cranberry Bog by a ratio of  $\square$  to  $\square$ .
3. A town considers whether to put in curbs along the streets. The ratio of people who support putting in curbs to those who oppose it is 2 to 5.
  - a. What fraction of the people *oppose* putting in curbs?
  - b. If 210 people in the town are surveyed, how many do you expect to *favor* putting in curbs?
  - c. What percent of the people oppose putting in curbs?



Students at a middle school are asked to record how they spend their time from midnight on Friday to midnight on Sunday. Carlos records his data in the table below. Use the table for Exercises 4–7.

### Weekend Activities

Activity	Number of Hours
Sleeping	18
Eating	2.5
Recreation	8
Talking on the Phone	2
Watching Television	6
Doing Chores or Homework	2
Other	9.5



4. How would you compare how Carlos spent his time on various activities over the weekend? Explain.
5. Decide if each statement is an accurate description of how Carlos spent his time that weekend.
  - a. He spent one sixth of his time watching television.
  - b. The ratio of hours spent watching television to hours spent doing chores or homework is 3 to 1.
  - c. Recreation, talking on the phone, and watching television took about 33% of his time.
  - d. Time spent doing chores or homework was only 20% of the time spent watching television.
  - e. Sleeping, eating, and “other” activities took up 12 hours more than all other activities combined.
6. Estimate what the numbers of hours would be in *your* weekend activity table. Then write a ratio statement like statement (b) to fit your data.
7. Write other accurate statements comparing Carlos’s use of weekend time for various activities. Use each concept at least once.
  - a. ratio
  - b. difference
  - c. fraction
  - d. percent